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Oyoung

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(54) **TRUCK MOUNTED FLAG AND POLE ASSEMBLY**

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G09F 17/00 (2006.01)

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CPC ***G09F 17/00*** (2013.01); *G09F 2017/0066* (2013.01); *G09F 2017/0075* (2013.01)

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USPC ..... 116/28 R, 173, 174, 175; 40/590, 591, 40/592; 224/402, 403, 404, 405, 549, 550, 224/551, 557; 248/503; 296/3; 362/477, 362/485, 493, 496; 410/110, 151; D11/166, D11/182, 183
See application file for complete search history.

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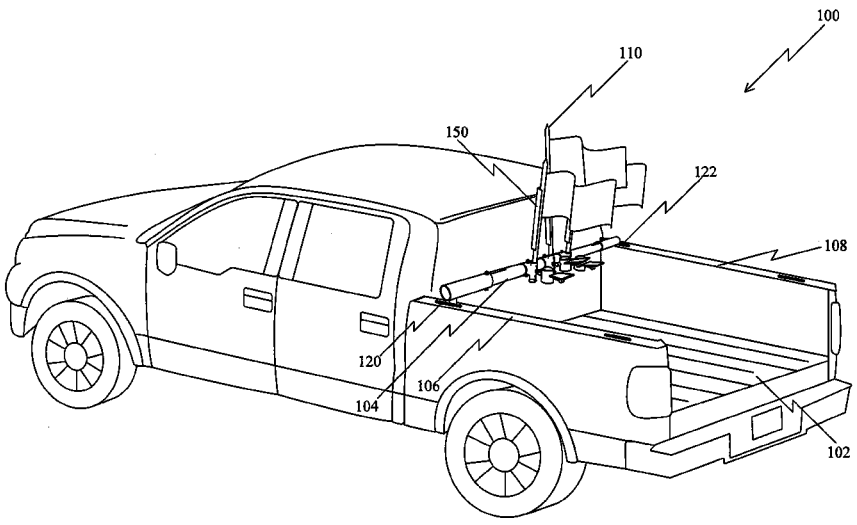
Primary Examiner — Richard A Smith

(57) **ABSTRACT**

A flag and pole mounting assembly for attaching a flagpole to a vehicle includes a middle shaft extending substantially between two sidewalls of the vehicle and adjustable endshafts for extending the total length of the mounting assembly. Posts at each end of the middle shaft engage with stake pockets located in the two sidewalls of the vehicle. A flagpole attachment member couples to the middle shaft and defines a cavity for receiving and securing the flagpole to the middle shaft. A light source connected to the flagpole attachment member illuminates the flagpole or an associated flag when the flagpole is coupled to the flagpole attachment member. A solar panel or other power source is electrically connected to the light source for powering the light source. The mounting assembly may only utilize one stake pocket or may engage with the sidewalls of the vehicle without use of any stake pockets.

16 Claims, 11 Drawing Sheets



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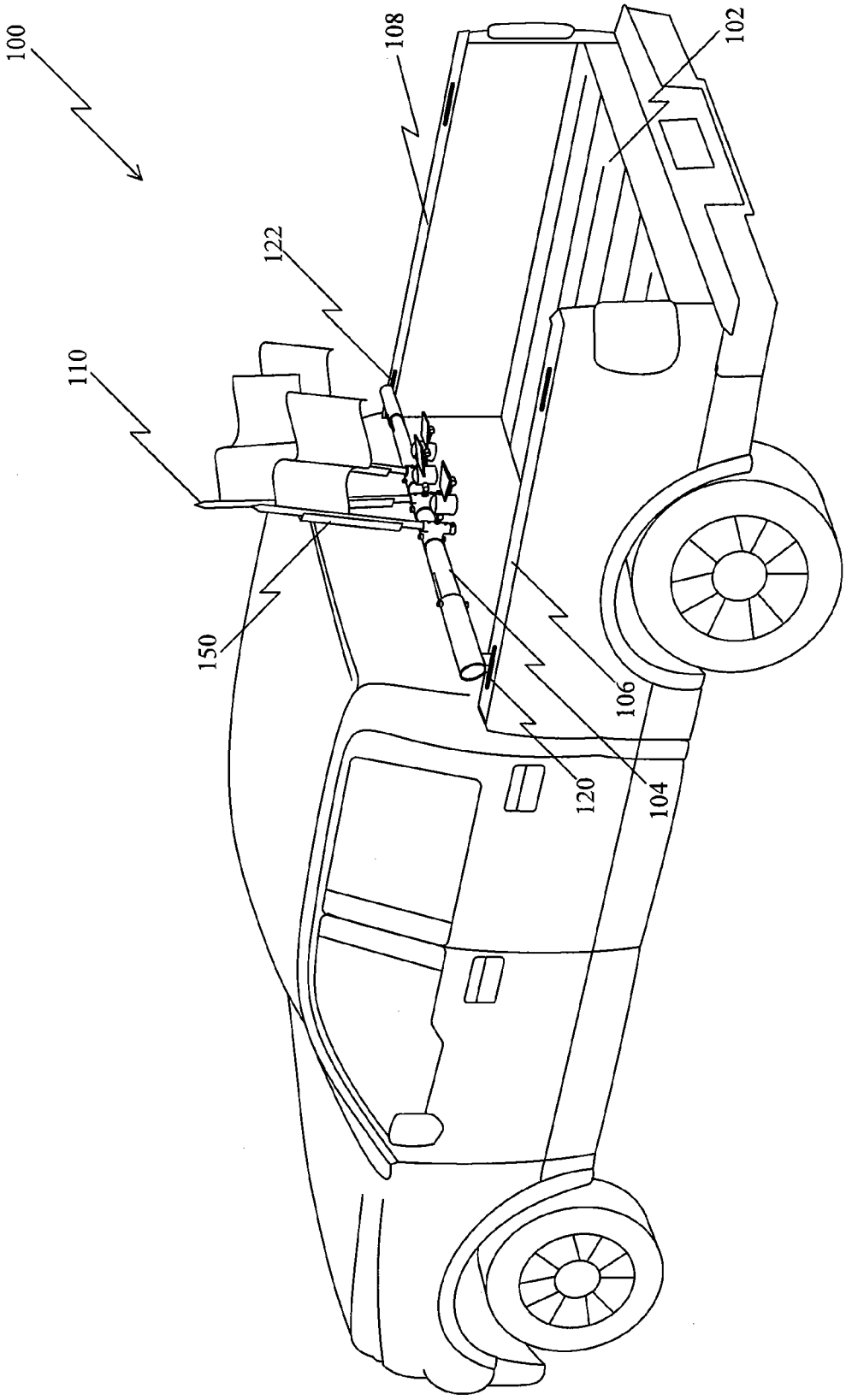

FIG. 1

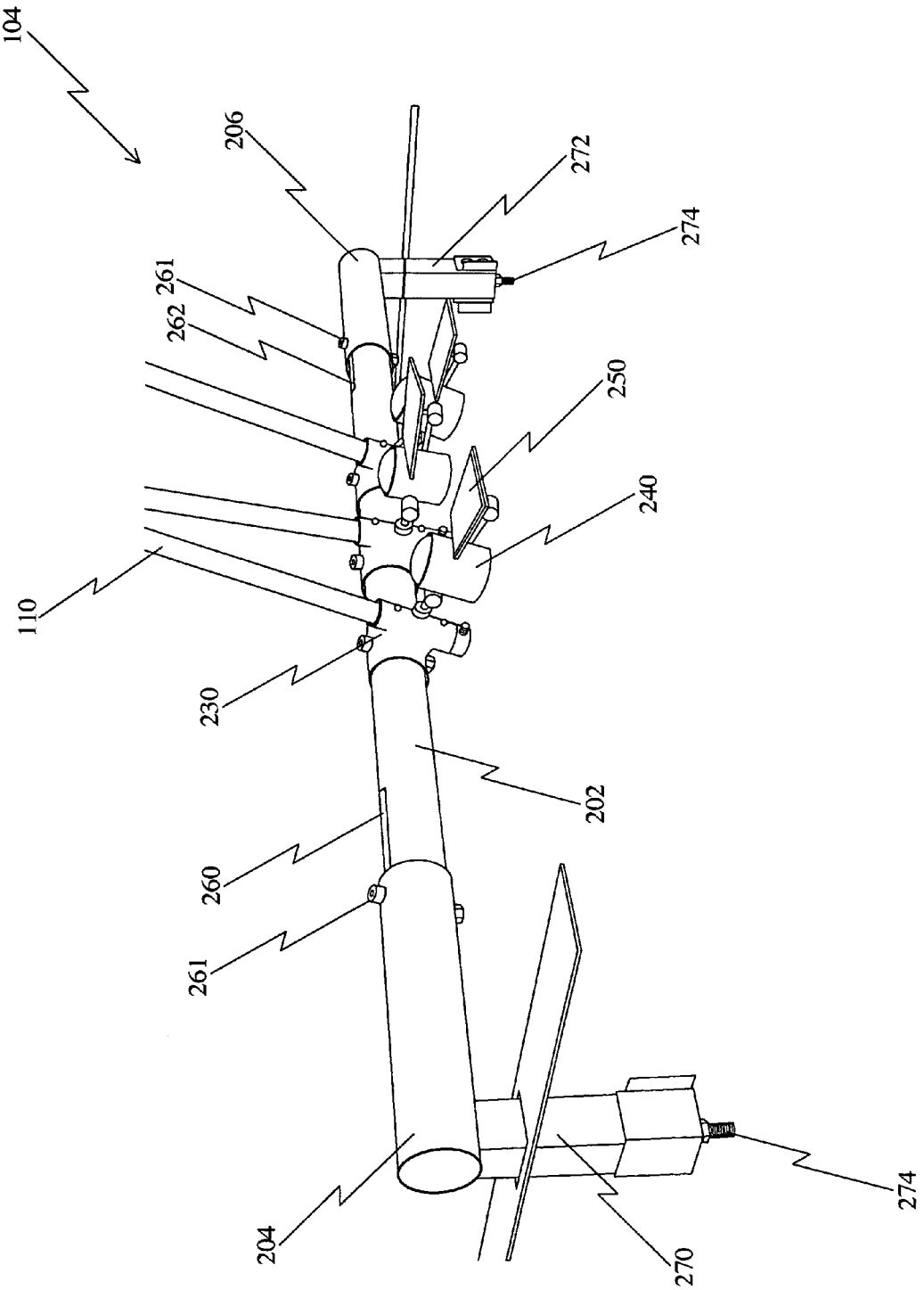

FIG. 2

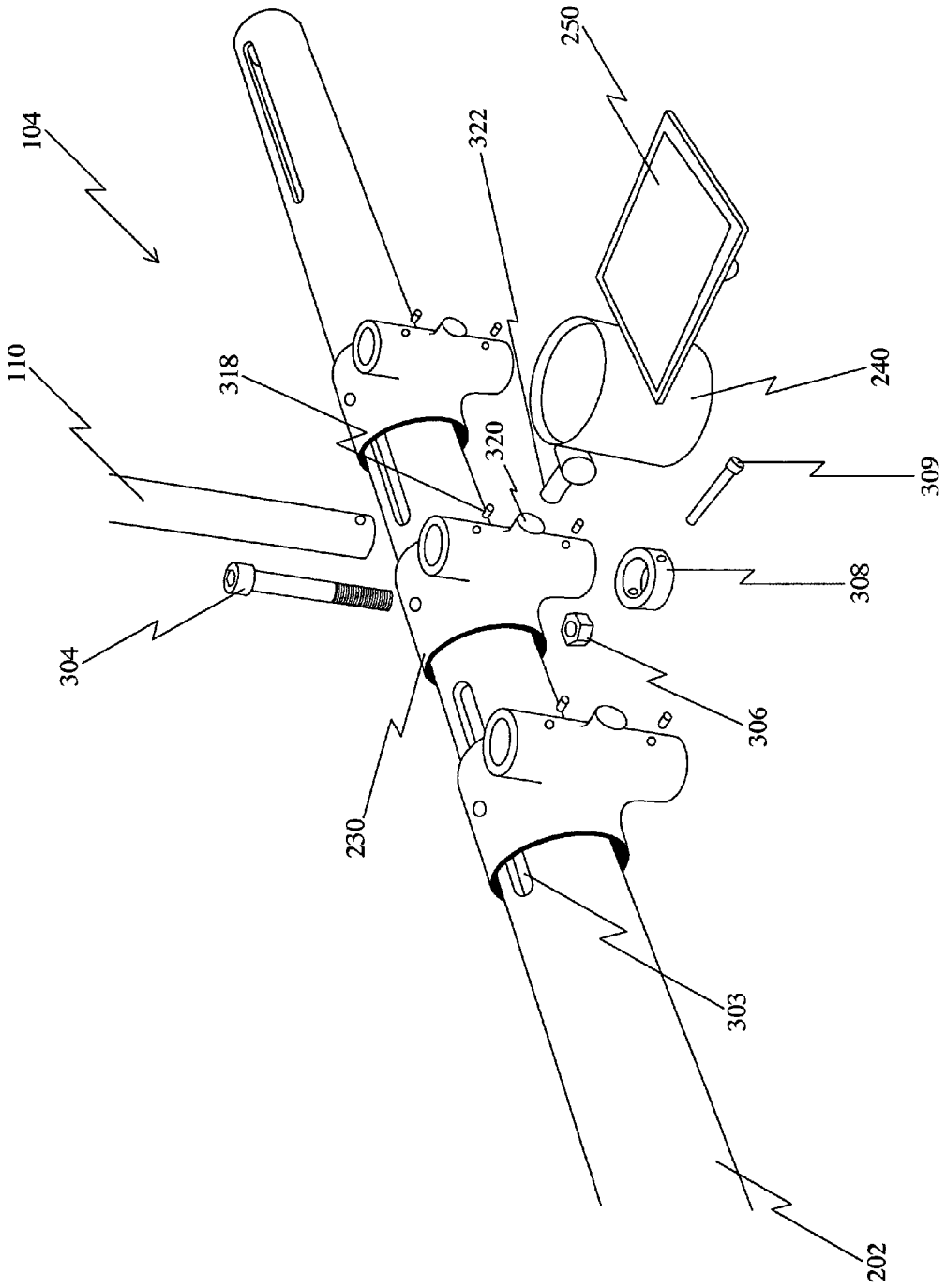

FIG. 3

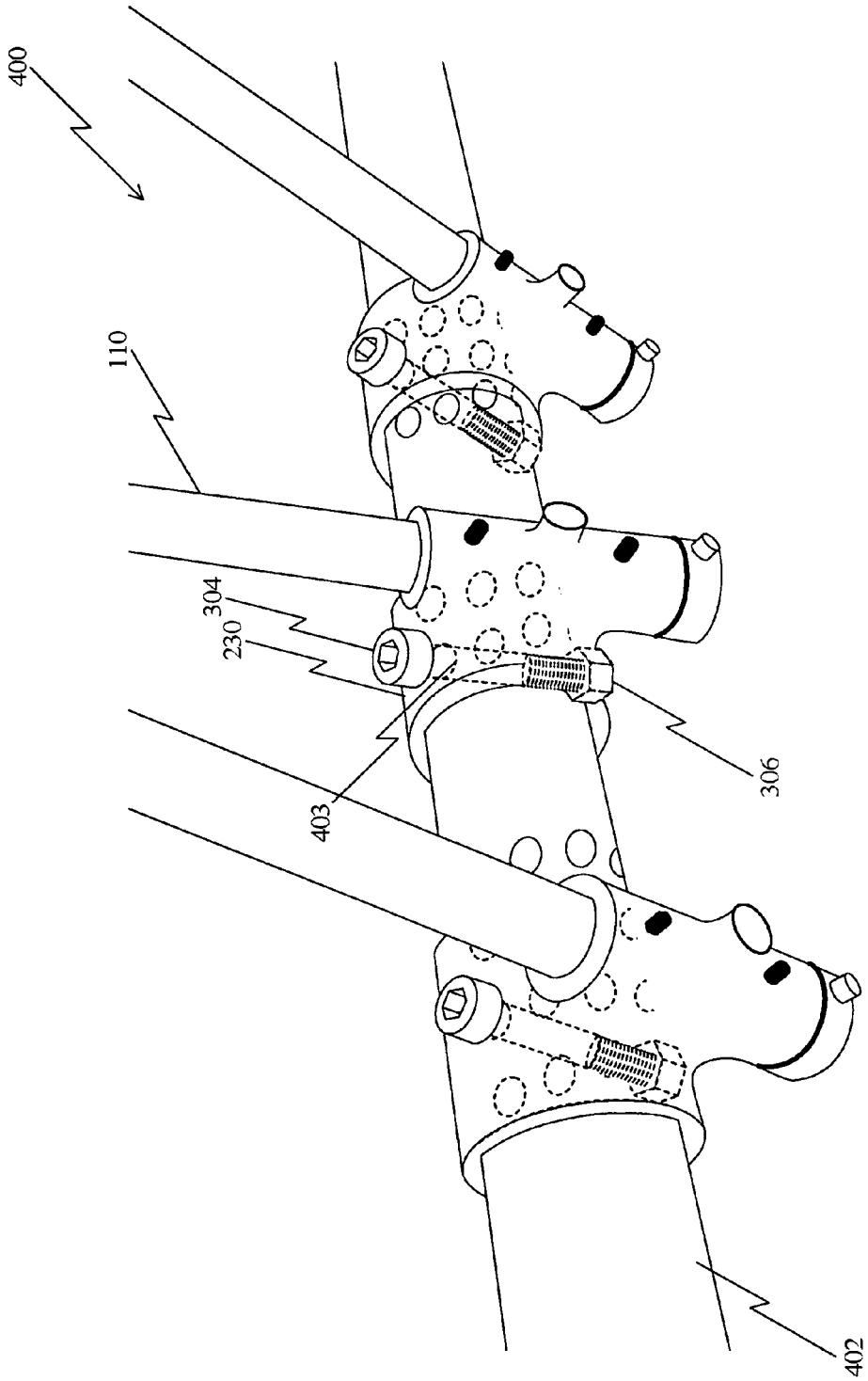

FIG. 4

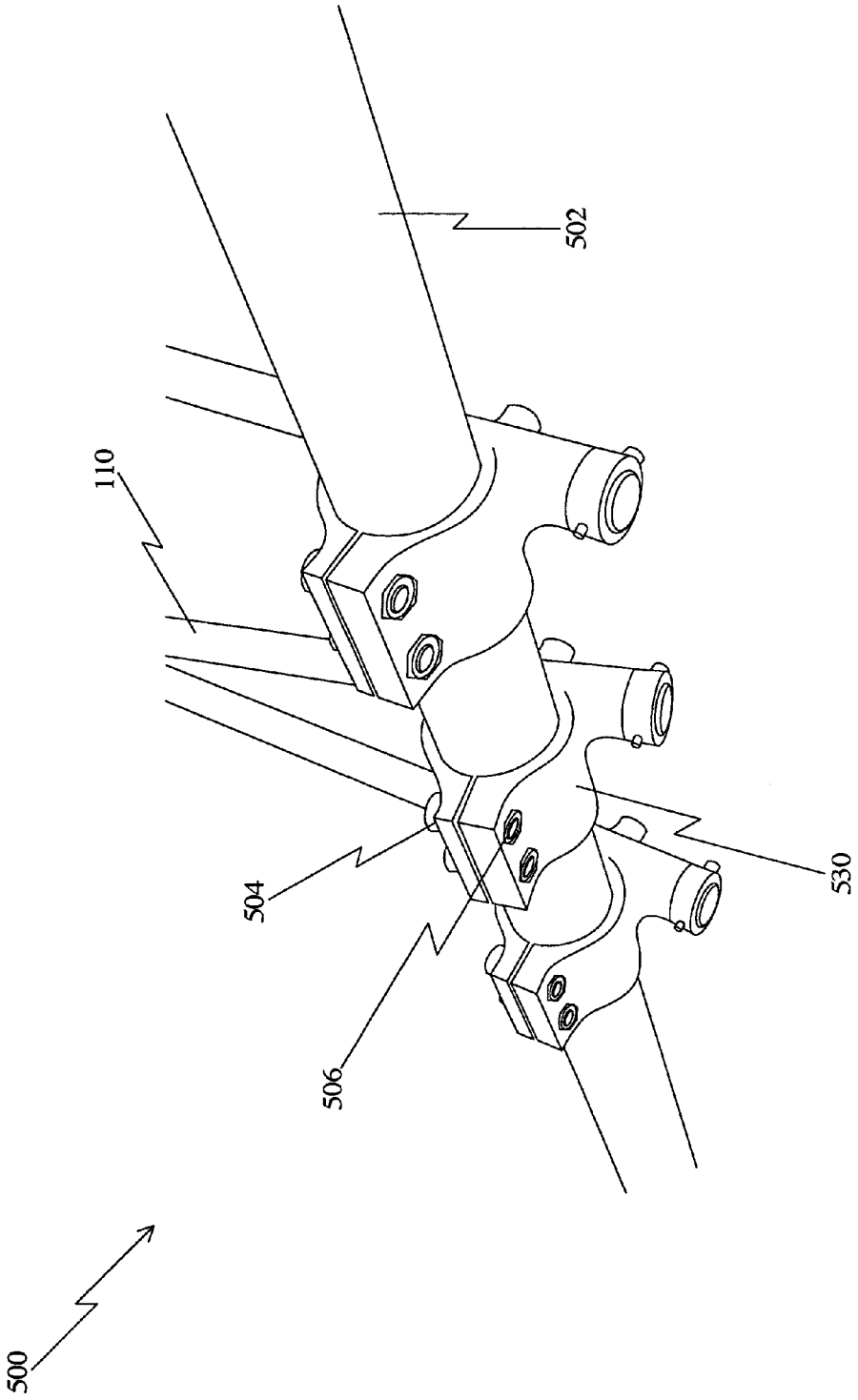

FIG. 5

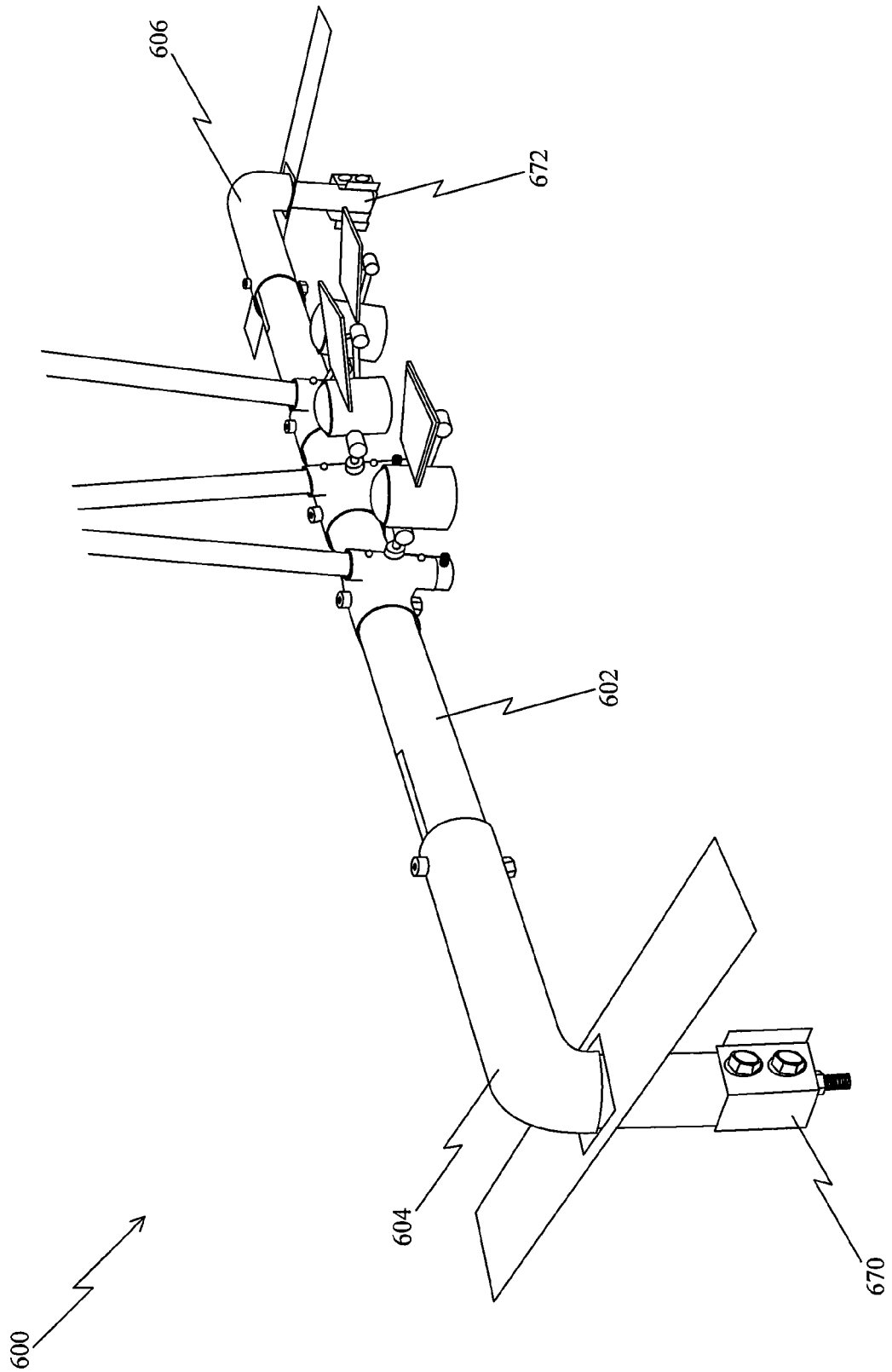

FIG. 6

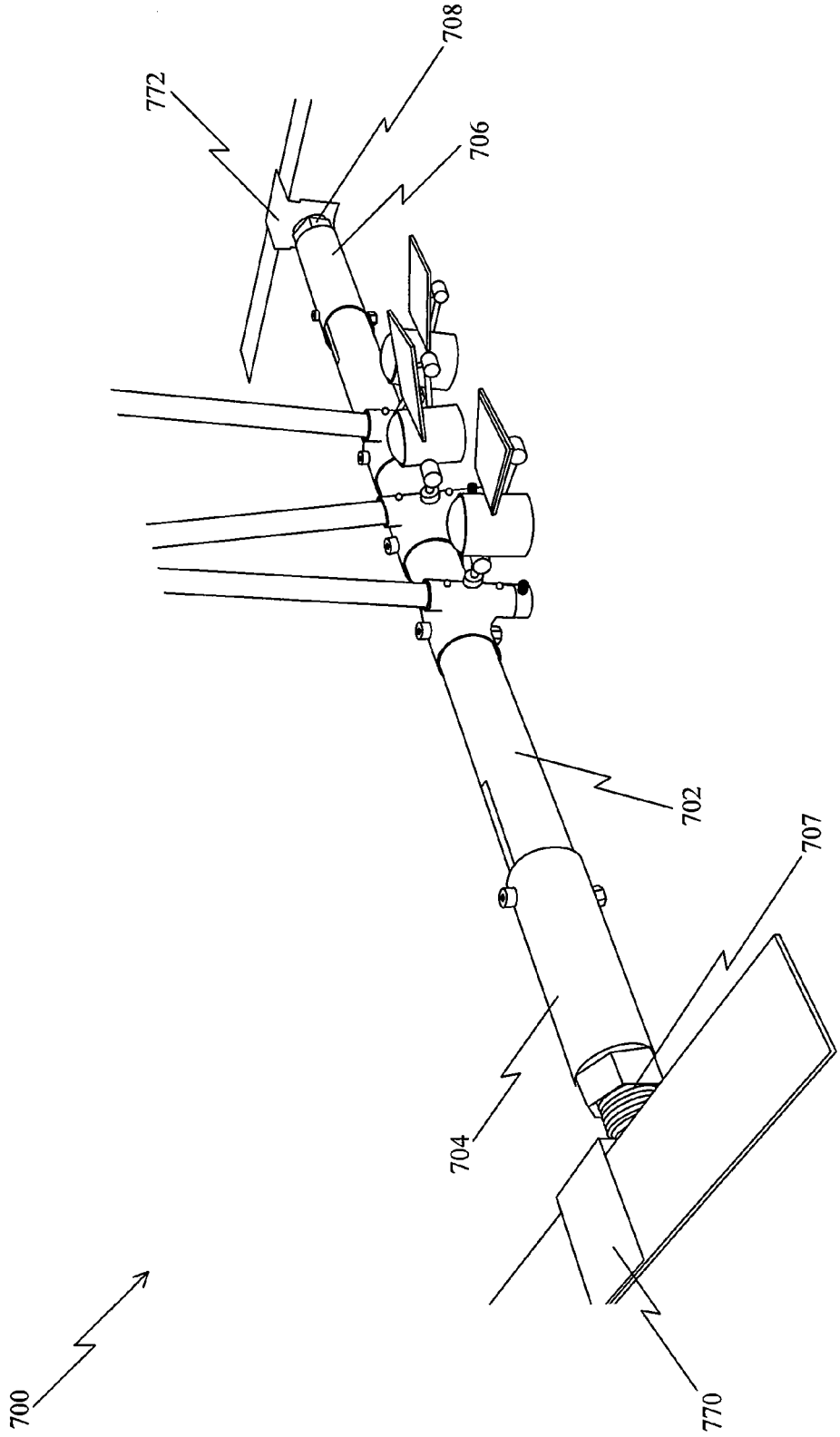

FIG. 7

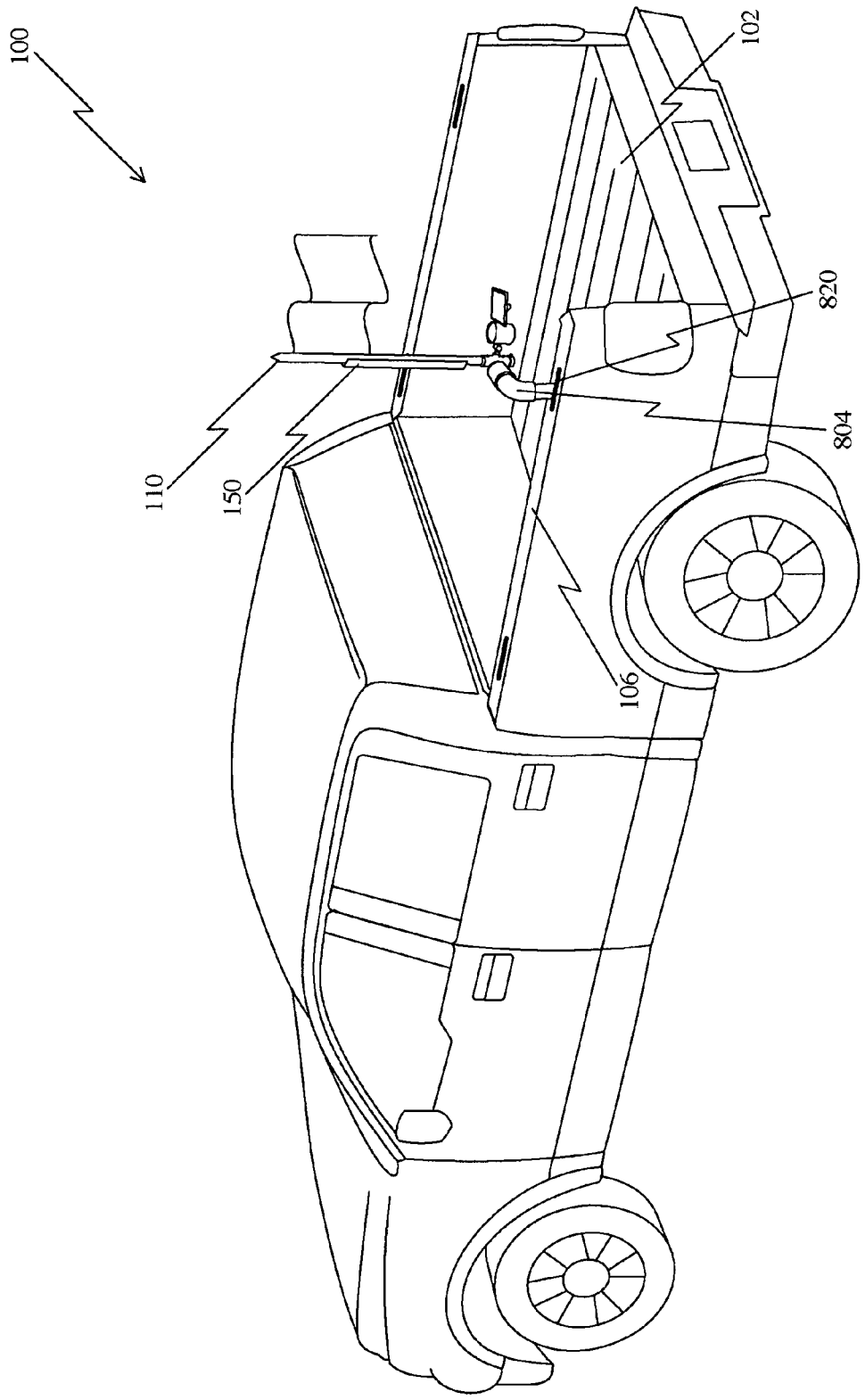

FIG. 8

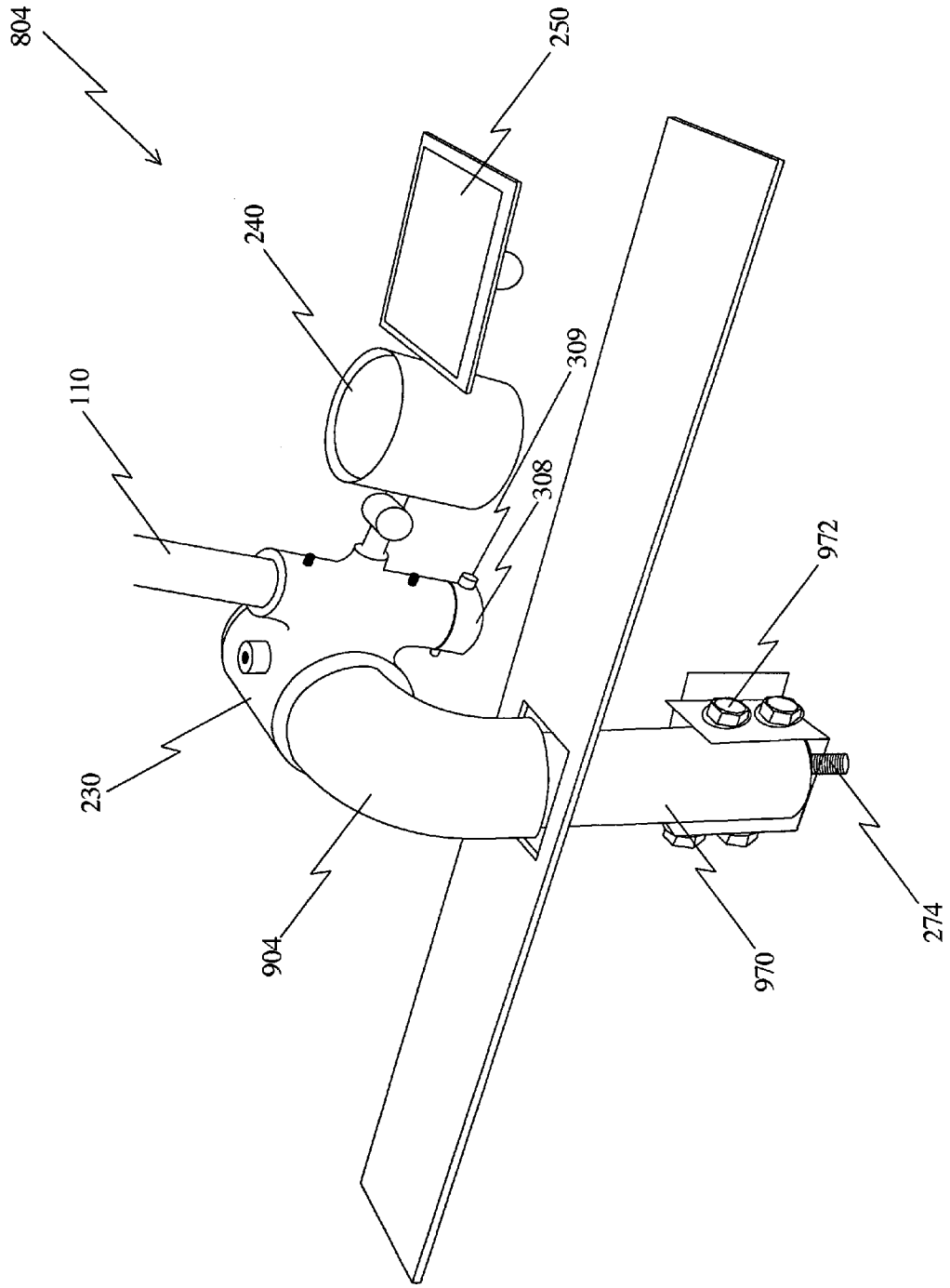

FIG. 9

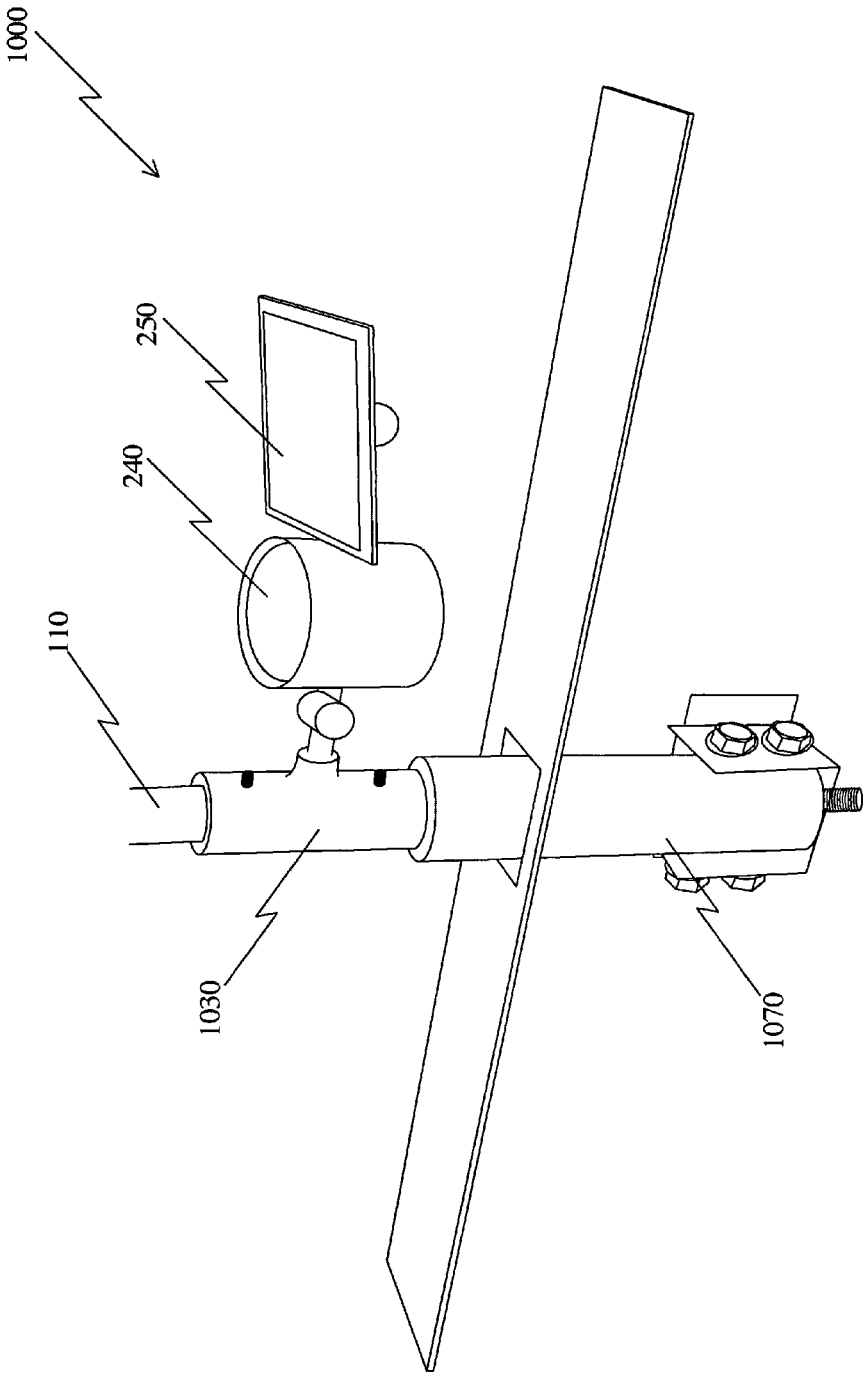

FIG. 10

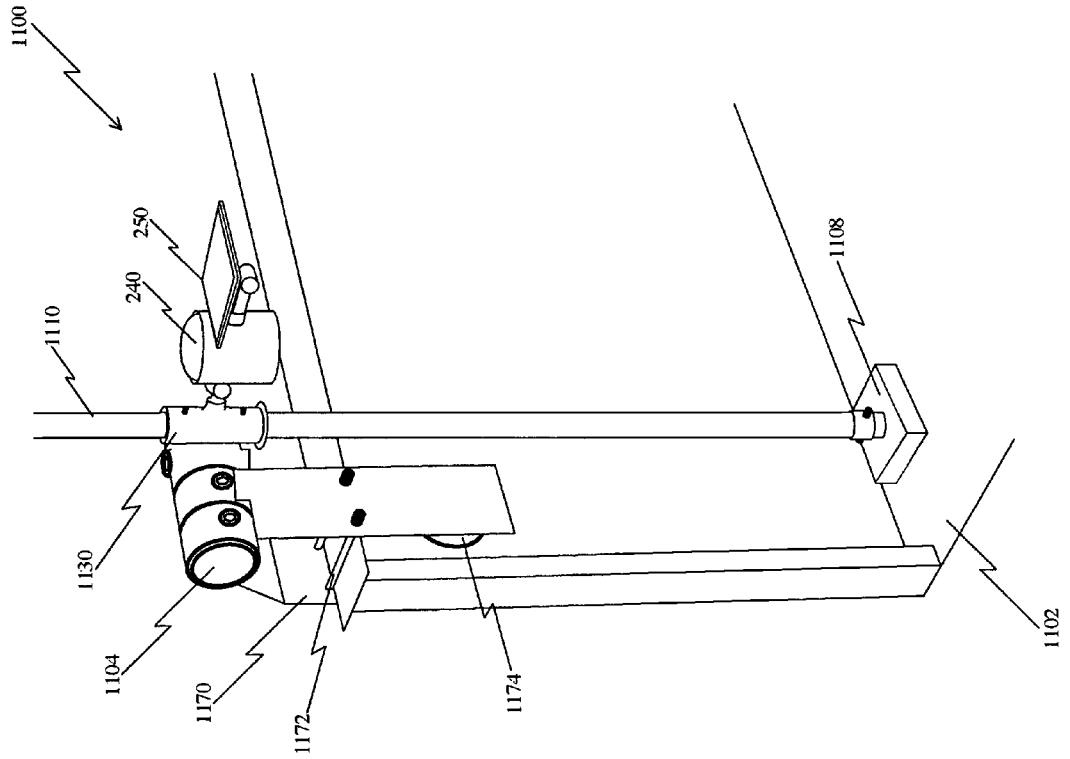

FIG. 11

TRUCK MOUNTED FLAG AND POLE ASSEMBLY

BACKGROUND

1. Field

The present invention relates generally to assemblies for attaching objects to vehicles and improvements thereof. More particularly, the present invention relates to mounting assemblies for attaching flagpoles to trucks and improvements thereof.

2. Description of the Related Art

In the field of automobile attachment assemblies, a variety of designs and structures exist for fastening various objects to an exterior or interior of a vehicle. Assemblies for fastening signage, lighting elements, antennas, hitches, placards, flags or other objects have been designed for mounting upon vehicles of various shapes and sizes. Many vehicle owners, particularly for patriotic reasons or to showcase their support for favorite sports organizations, desire to display a flag upon their automobile. Trucks provide a favorable structure for flag attachment due to their generally large chassis assemblies and truck bed storage areas where blocking visibility out of a cabin window is less of a concern than for automobiles.

Truck bed sidewalls often include one or more holes that provide access to enclosed areas within the truck chassis, known as stake holes or stake pockets. Certain designs have used these stake pockets to provide a secure attachment mechanism for a mounting assembly used to fasten an object to the truck bed side wall. These mounting assemblies may also be attached semi-permanently, for example, with screws or bolts, when positioned within the stake pockets for increased stability. Other designs have instead focused on vacuum-based or alternative fastening methods, such as roof-mounted suction cups or window-mounted clamps. Those who desire a longer lasting solution may alternatively opt for a more permanent design that requires drilling or puncturing into the body of the vehicle in order to fasten the object with screws, adhesives or clamps to the automobile chassis.

While current flagpole mounting systems exist in the prior art, such systems are often made for small, lightweight flags or are difficult to install or maintain. Current systems may even require permanent alterations to the vehicle, increasing the chances for expensive damage or repair costs when removing the system or potentially hurting the resale value of the vehicle. Thus, current systems do not adequately meet the needs of individuals who desire an inexpensive and removable, yet secure, flagpole mounting system, particularly those individuals who desire a mounting assembly or system that can securely fasten one or more of larger or heavier objects to vehicles without requiring permanent alterations to the vehicle chassis. Ideally, the mounting assembly would utilize the stake pockets, sidewalls, or back side behind the cab/rear window of a truck bed for attaching the mounting assembly to the vehicle. In order to accommodate the wide variety of vehicles available for purchase with a wide variety of dimensions, the mounting assembly should also be adjustable so that costly individual engineering or manufacturing of the assemblies for specific vehicle types is avoided. An ideal mounting assembly should be safe to both the owner of the vehicle on which it is installed and to owners of other vehicles that may be in the vicinity of such a vehicle on the roadway. Hence, the mounting assembly should be configured to securely couple to the vehicle and adequately hold the mounted object during vehicle movement or during a crash.

Safety is of particular importance for commercial vehicles available today with ever-increasing engine performance and vehicle speed capabilities.

An ideal mounting assembly should also be practical for everyday use. Thus, the mounting assembly should be easy to both install and to remove by the owner of the vehicle. The mounting assembly should also be difficult for casual thieves to steal flags already attached to the mounting assembly without requiring the owner to un-mount the mounting assembly and store it elsewhere when the vehicle is parked or unattended. Finally, an ideal mounting assembly should also minimize the amount of storage area taken up by the mounting assembly and should also provide illumination to any attached flagpole. In addition to aesthetic reasons, those individuals desirous of flying the American flag on their vehicle for patriotic reasons need a form of illumination upon the flag in order to comply with the flag display requirements during the hours of darkness specified by Title 4, Chapter 1, Section 6 of the U.S. Code.

SUMMARY

An assembly for mounting a flagpole to a vehicle is disclosed. In one embodiment, a flag and pole mounting assembly includes a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between a first sidewall and a second sidewall of a vehicle. At least one flagpole attachment member is coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving a flagpole.

The flag and pole mounting assembly may also include a first endshaft, a second endshaft, a first post and a second post. The first endshaft has a connecting portion coupled to the first portion of the middle shaft and an end portion. The second endshaft has a connecting portion coupled to the second portion of the middle shaft and an end portion. The first post couples to the end portion of the first endshaft and is configured to engage with a first stake pocket located in the first sidewall of the vehicle. Similarly, the second post couples to the end portion of the second endshaft and is configured to engage with a second stake pocket located in the second sidewall of the vehicle. Moreover, a light source and a solar panel may be utilized to illuminate a flag when a flagpole is positioned in the flagpole attachment member.

In another embodiment, a flag and pole mounting assembly includes a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between a first sidewall and a second sidewall of a vehicle. A first endshaft has a connecting portion coupled to the first portion of the middle shaft and an end portion. Similarly, a second endshaft has a connecting portion coupled to the second portion of the middle shaft and an end portion. A first bracket couples to the first endshaft via a first threaded component and is configured to contact the first sidewall of the vehicle. Likewise, a second bracket couples to the second endshaft via a second threaded component and is configured to contact the second sidewall of the vehicle. A flagpole attachment member couples to the middle shaft between the first portion and the second portion of the middle shaft, the flagpole attachment member defining an opening to receive the flagpole.

In still another embodiment, a flag and pole mounting assembly includes a shaft and a post coupled to the shaft. The post is configured to be received within a cavity of a vehicle. A flagpole attachment device is coupled to the shaft and

defines an opening for receiving a flagpole, the flagpole attachment member adjustably oriented around a perimeter of the shaft.

BRIEF DESCRIPTION OF THE DRAWINGS

Other systems, methods, features, and advantages of the present invention will be or will become apparent to one with skill in the art upon examination of the following figures and detailed description. It is intended that all such additional systems, methods, features, and advantages be included within this description, be within the scope of the present invention, and be protected by the accompanying claims. Component parts shown in the drawings are not necessarily to scale, and may be exaggerated to better illustrate the important features of the present invention. In the drawings, like reference numerals designate like parts throughout the different views, wherein:

FIG. **1** is a view of a truck having a flag and pole assembly mounted across a truck bed according to an embodiment of the present invention;

FIG. **2** is a perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **3** is an exploded and zoomed perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **4** is a zoomed perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **5** is a zoomed perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **6** is a perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **7** is a perspective view of the flag and pole assembly shown in FIG. **1** according to an embodiment of the present invention;

FIG. **8** is a view of a truck having a flag and pole assembly mounted on one side of a truck bed according to an embodiment of the present invention;

FIG. **9** is a perspective view of the flag and pole assembly shown in FIG. **8** according to an embodiment of the present invention;

FIG. **10** is a perspective view of the flag and pole assembly shown in FIG. **8** according to an embodiment of the present invention; and

FIG. **11** is a perspective view of an embodiment of a flag and pole assembly mounted on a truck without the use of a stake pocket according to an embodiment of the present invention.

DETAILED DESCRIPTION

FIG. **1** shows a truck **100** with a flagpole **110** coupled thereto. The truck **100** includes a truck bed **102** partly defined by two sidewalls positioned along two outer edges of the truck bed **102**. A flag and pole mounting assembly **104** for receiving the flagpole **110** is positioned and extends substantially across the truck bed **102** between the two sidewalls. The first sidewall **106** contains a first stake pocket **120**. Similarly, the second sidewall **108** contains a second stake pocket **122**. The first stake pocket **120** and the second stake pocket **122** provide access to an interior volume of the first sidewall **106** and the second sidewall **108**, respectively. The flag and pole mounting assembly **104** is coupled to the first sidewall **106** and to the second sidewall **108** as discussed in greater detail herein. Hence, the flagpole **110** is secured or attached to the truck **100** via the flag and pole mounting assembly **104**. While the truck **100** is preferably shown, in another embodiment a different type of motor vehicle (car, boat, etc.) or other mobile or stationary structure may accommodate the flag and pole mounting assembly **104** for attaching the flagpole **110** thereto. Furthermore, other objects may be mounted in place of or in addition to flagpoles (e.g. light vehicles, animals, fishing equipment). Additionally, a wind deflector **150** having a wedged shape couples to the flagpole **110** for directing or controlling a flow of air around the flagpole **110** to better increase stability when the truck **100** is in motion. In another embodiment, the wind deflector **150** may be formed of various shapes or sizes or fasten to the flag and pole mounting assembly **104** instead of the flagpole **110**. In still another embodiment, the wind deflector **150** may not be included in order to reduce drag forces, depending on the angle of the flagpole **110**.

Referring now to FIG. **2**, a perspective view of an embodiment of a flag and pole mounting assembly **104** is shown. The mounting assembly **104** is preferably configured for attachment to a truck **100** and across a truck bed **102** between two sidewalls, for example, as shown by the flag and pole mounting assembly **104** in FIG. **1**. The mounting assembly **104** includes a middle shaft **202** having sufficient length to substantially extend between the two sidewalls of the truck **100** (see FIG. **1**). The middle shaft **202** is substantially cylindrical. In an alternative embodiment, the middle shaft **202** may be formed in other shapes or profiles. Preferably, in order to accommodate a variety of truck sizes or dimensions, the middle shaft **202** includes a connecting portion or component which is adjustably connectable with other components of the mounting assembly **104**, as discussed in greater detail below. In another embodiment, the mounting assembly **104** may be specifically designed for an application with predetermined dimensions and thus the middle shaft **202** may be fixed in length and without adjustable connection to other components.

At one end of the middle shaft **202**, a first slot **260** extends along a first portion of the middle shaft **202**. A first endshaft **204**, defining a cavity for receiving the middle shaft **202**, is configured to slide along and couple with the first slot **260** of the first portion of the middle shaft **202** via a bolt or other fastener **261**. Hence, the first endshaft **204** is permitted to connect with the middle shaft **202** at a variety of positions along the first slot **260**, providing an adjustable extension of the total length of the mounting assembly **104**. A similar connection is made at the other end of the middle shaft **202**. A second slot **262** extends along a second portion of the middle shaft **202** and a second endshaft **206** defining a cavity therein couples with the second slot **262** of the second portion of the middle shaft **202** via a bolt or other fastener **261**. By altering the connection location via the fasteners **261** of the first or second endshafts **204** or **206** along the first or second portions of the middle shaft **202**, the mounting assembly **104** is adjustable to fit a variety of truck shapes or sizes.

A wide variety of attachment mechanisms may be employed to adjustably couple the endshafts **204** or **206** to the middle shaft **202**. In one example, the first slot **260** or the second slot **262** may be manufactured as a plurality of discrete holes rather than as a continuous slot or channel, the fasteners **261** each engaging with these discrete holes to achieve a desired total length for the mounting assembly **104** or for coupling the endshafts **204** or **206** at a variety of rotated positions to the middle shaft **202**. In another example, the first slot **260** or the second slot **262** may instead extend along the

first or second endshafts **204** or **206** instead of along the middle shaft **202**. The first or second endshafts **204** or **206** may also slide within an interior of the middle shaft **202** rather than along the exterior surface. Moreover, other fastening methods may be employed in place of or in addition to the fasteners **261** described above to adjustably mount the first endshaft **204** or the second endshaft **206** to the middle shaft **202**. In still another embodiment, the middle shaft **202** itself may be adjustable in length, thereby eliminating the need for adjustable connection portions or endshafts.

A first post **270** is connected to the first endshaft **204**. With reference to FIG. **1**, the first post **270** is configured to fit within the first stake pocket **120** of the sidewall **106**. Likewise, a second post **272** is connected to the second endshaft **206** and is configured to fit within the second stake pocket **122** of the sidewall **108**. The middle shaft **202** thus substantially extends across the truck bed and between the two sidewalls. The first post **270** is configured to fasten to an interior surface (e.g. on the bottom or on the sides of the stake pocket **120**) or component of the sidewall **106** when positioned within the stake pocket **120** via a screw, bolt or other fastener **274** in order to secure the post to the sidewall and stabilize the mounting assembly **104** to the truck. The second post **272** is similarly adapted to fasten to an interior surface or component of the sidewall **108** when positioned within the stake pocket **122** via a screw, bolt or other fastener **274**. Thus, the mounting assembly **104** can be securely mounted to the truck to provide a stable base for the attachment of other mounting assembly **104** components. In an alternative embodiment, the first or second posts **270** or **272** may be adapted to couple with the stake pockets **120** or **122** without being additionally fastened within the interior of the sidewalls **106** or **108**.

Three flagpole attachment members **230** are coupled to the middle shaft **202** between the first portion and the second portion of the middle shaft **202**. An alternative embodiment may utilize greater or fewer flagpole attachment members **230**. The flagpole attachment member **230** is connected to the middle shaft **202** via a bolt or screw that passes through an interior of the middle shaft **202**, as discussed in greater detail in FIG. **3**. The flagpole attachment member **230** defines a cavity for receiving a flagpole **110**. The flagpole **110** may be the flagpole **110** as seen in FIG. **1**. The flagpole **110** slides into the cavity of the flagpole attachment member **230** and is secured to the flagpole attachment member **230** as described in more detail in FIG. **3**.

Additionally, a light source **240** is coupled to the flagpole attachment member **230** and directs light toward the flagpole **110** for illumination. In another embodiment, the light source **240** may be coupled to the middle shaft **202** or another component of the mounting assembly **104** or the vehicle so long as the light source **240** can illuminate the flagpole **110**, an associated flag or the truck bed itself. In still another embodiment, no light source **240** may be incorporated at all. The light source **240** comprises one or more LEDs in order to provide ample lighting with minimal power consumption. Other types of light sources may be used in alternative embodiments, for example neon or incandescent bulbs. Various colored bulbs or bulb covers may be employed to illuminate the attached flagpole **110** or associated flag with a variety of different colors, hues or tints. A solar panel **250** is coupled to and electrically connected with the light source **240** to provide power for illuminating the flagpole **110**. The solar panel **250** may be coupled to another component of the mounting assembly **104** in another embodiment. Alternatively, a battery may be used in place of or in addition to the solar panel **250**. In still other embodiments, the light source **240** may be configured to electrically connect with the truck or vehicle's electrical system or battery, thereby eliminating the need for any additional power components.

FIG. **3** shows an exploded and zoomed perspective view of a middle shaft **202** of a mounting assembly **104** and demonstrates one embodiment for attaching a flagpole **110** to a vehicle. The middle shaft **202** couples with a flagpole attachment member **230**, a light source **240**, and a solar panel **250**. The flagpole attachment member **230** couples with the middle shaft **202** via a threaded bolt **304** that passes through an opening in the flagpole attachment member **230** and also passes through an interior of the middle shaft **202**. A nut **306** engages with the threads of the bolt **304** once the bolt **304** is positioned through both the flagpole attachment member **230** and the middle shaft **202** to hold the bolt **304** in place and thus secure the flagpole attachment member **230** to the middle shaft **202**. A slot or channel **303** in the middle shaft **202** receives the bolt **304** to permit the bolt to enter the interior of the middle shaft **202**. The flagpole attachment member **230** may thus be attached to the middle shaft **202** at an adjustable location at any position along the slot **303**, allowing the flagpole attachment device to be mounted at a variety of locations along the mounting assembly **104**. In another embodiment, a discrete hole or a plurality of discrete holes may be used to receive the bolt **304**. In still another embodiment, the flagpole attachment member **230** may be attached via setscrews that secure the flagpole attachment member **230** to the middle shaft **202** without requiring any slot or channel or holes in the middle shaft **202**.

The flagpole attachment member **230** includes a cavity, preferably cylindrical in shape, to accept the flagpole **110**. The flagpole **110** slides within the cavity of the flagpole attachment member **230** and engages with an endcap or endpiece **308** of the flagpole attachment member **230**. Alternatively, the endcap **308** may be of any shape or configuration or may screw onto the flagpole **110**. In still another embodiment, the flagpole **110** may extend through the cavity of the flagpole attachment member **230** and rest on the base of the truck bed or fasten to an endcap or base that rests on the truck bed, as seen in more detail for FIG. **11**. The endcap **308** includes a plurality of holes for accepting an endbolt or other fastener **309**. The endbolt **309** is configured to pass through the holes of the endcap **308** and also pass through the flagpole **110**, thus attaching the flagpole **110** to the flagpole receiving member **230**. For further stability, the flagpole attachment member **230** preferably includes two setscrews **318** for pressing against the flagpole **110** when the flagpole **110** is positioned within the cavity of the flagpole attachment member **230**. These setscrews **318** provide additional pressure points to help prevent movement of the flagpole **110** after it is positioned within the cavity of the flagpole attachment member **230**.

The flagpole attachment member **230** also includes an opening **320** for receiving the light source **240**. The light source **240** has a protruding element **322** for positioning within the opening **320** of the flagpole attachment member **230**. The opening **320** of the flagpole attachment member **230** and the protrusion **322** of the light source **240** are preferably cylindrical or rounded in shape, permitting the light source **240** to be rotatably coupled to the flagpole attachment member **230**. Hence, the light source **240** can be finely adjusted or directed as desired toward the flagpole **110** after the flagpole **110** has been received by the flagpole attachment member **230**. The solar panel **250** is electrically connected with the light source **240** for providing power to the light source **240**. Other aspects, components or features of the flagpole attach-

ment member **230** mounting assembly **104** may be similar to the embodiments elsewhere described.

FIG. **4** shows a zoomed perspective view of a middle shaft **402** of a mounting assembly **400** and demonstrates another embodiment for attaching a flagpole **110** to a vehicle. The middle shaft **402** couples with a flagpole attachment member **230**. Similar to the mounting assembly **104** (see FIG. **3**), the flagpole attachment member **230** is coupled to the middle shaft **402** with a threaded bolt **304** and a nut **306**. However, instead of using a configuration like the slot **303** (see FIG. **3**) to receive the bolt **304**, the bolt **304** passes through one of a plurality of discrete holes **403** to enter an interior volume of the middle shaft **402**. The plurality of discrete holes are disposed around a circumference of the middle shaft **402**. The bolt **304** passes through the flagpole attachment member **230**, through one of the discrete holes **403** of the middle shaft **402**, through the interior volume of the middle shaft **402**, through another one of the discrete holes **403** to exit the middle shaft **402** and finally through the flagpole attachment member **230** to engage with the nut **306** for tightening the flagpole attachment member **230** and the middle shaft **402** together. The plurality of discrete holes **403** are positioned both longitudinally along the middle shaft **402** and radially around a perimeter or circumference of the middle shaft **402**. Thus, the flagpole attachment member **230** can be positioned at various locations along a central axis of the middle shaft **402** and is also rotatable around the outer circumference of the middle shaft **402**. This configuration provides increased flexibility for the placement and orientation of any desired flagpoles **110** to be attached to the vehicle via the flagpole attachment member **230**. Other aspects, components or features of the flagpole attachment member **230** or the mounting assembly **400** may be similar to the embodiments elsewhere described.

In still another embodiment for attaching a flagpole to a vehicle, FIG. **5** shows a zoomed perspective view of a middle shaft **502** of a mounting assembly **500**. The middle shaft **502** couples with a flagpole attachment member **530**. The flagpole attachment member **530** uses a threaded bolt **504** and a nut **506** to couple the flagpole attachment member **530** to the middle shaft **502**.

In contrast to the above described embodiments, the flagpole attachment member **530** fastens to the middle shaft **502** via a clamping configuration, wherein the bolt **504** does not enter or pass through the middle shaft **502**. Instead, the bolt **504** only passes through two portions of the flagpole attachment member **530** that act as a clamp around the middle shaft **502**. Hence, the two portions of the flagpole attachment member **530** are pulled towards each other by rotating the nut **506** along the bolt **504**, thus tightening the flagpole attachment member **530** around the middle shaft **502**. The middle shaft **502** of mounting assembly **500** can thus be manufactured without slots or discrete holes for accommodating any connecting components for the attachment of the flagpole attachment member **530**. Other aspects, components or features of the flagpole attachment member **530** or the mounting assembly **500** may be similar to the embodiments elsewhere described.

Turning now to FIG. **6**, a mounting assembly **600** is shown for attaching a flagpole to a vehicle. The mounting assembly **600** is similar to and may incorporate many of the same components or features as described above. However, mounting assembly **600** utilizes a first endshaft **604** and a second endshaft **606** that differ from those previously discussed (see FIG. **2**). While the mounting assembly **104** (see FIG. **2**) incorporated straight posts **270** and **272** that were coupled at a substantially 90 degree angle with first and second endshafts **204** and **206**, the mounting assembly **600** has a first endshaft **604** and a second endshaft **606** with integrally formed curved portions that connect to posts with substantially no angle between the post and the endshaft at their coupling location.

The first endshaft **604** has an end portion and has a connecting portion that connects with a middle shaft **602** at a first portion of the middle shaft **602**. The second endshaft **606** has an end portion and has a connecting portion that connects with the middle shaft **602** at a second portion of the middle shaft **602**. The curved portion of the first endshafts **604** is formed between the connecting portion and the end portion of the first endshaft **604**. Likewise, the curved portion of the second endshaft **606** is formed between the connecting portion and the end portion of the second endshaft **606**. Each curved portion forms a substantially 90 degree curve. A first post **670** is coupled with the end portion of the first endshaft **604** and a second post **672** is coupled with the end portion of the second endshaft **606**. The curved portions of the endshafts **604** and **606** provide an aesthetically pleasing look while also eliminating sharp edges that may otherwise be a safety concern for an assembly located on an exterior of a vehicle. Other aspects, components or features of the mounting assembly **600** may be similar to the embodiments elsewhere described.

Referring next to FIG. **7**, a mounting assembly **700** is shown for attaching a flagpole to a vehicle. The mounting assembly **700** is similar to and may incorporate many of the same components or features as described above. However, mounting assembly **700** utilizes a different vehicle attachment method that does not require or depend upon stake pockets, in contrast to the embodiments previously discussed.

The mounting assembly **700** comprises a middle shaft **702** coupled to a first endshaft **704** and a second endshaft **706**. The first or second endshafts **704** or **706** are adjustably connected to the middle shaft **702** in order to accommodate a variety of truck bed dimensions, as discussed above for FIG. **2**. The first endshaft **704** rotatably engages with first threads of a first threaded component **707**. The second endshaft **706** rotatably engages with first threads of a second threaded component **708**. A first bracket **770** has a top portion that is configured to make contact with a top surface of the first sidewall **106** (see FIG. **1**) and a second bracket **772** has a top portion that is configured to make contact with a top surface of the second sidewall **108** (see FIG. **1**). The first bracket **770** also has a side portion that receives second threads of the first threaded component **707**. Similarly, the second bracket **772** has a side portion that receives second threads of the second threaded component **708**.

Rotating the first threaded component **707** or the second threaded component **708** provides an additional adjustment of the total length of the mounting assembly **700**. For example, by rotating the first threaded component **707** in one direction, the first threads of the first threaded component will extend from the first endshaft **704** and the second threads of the first threaded component will extend from the first bracket **770**, effectively increasing the total length of the mounting assembly **700**. By rotating the first threaded component **707** in the opposite direction, the first threads of the first threaded component will retreat into the first endshaft **704** and the second threads of the first threaded component will retreat into the first bracket **770**. The second threaded component **708** operates in a similar manner. Other aspects, components or features of the mounting assembly **700** may be similar to the embodiments elsewhere described.

An alternative flag and pole mounting assembly **804** is shown in FIG. **8** mounted on a truck **100** with a flagpole **110** coupled thereto. Similar to FIG. **1**, the truck **100** includes a truck bed **102** partly defined by two sidewalls positioned along two outer edges of the truck bed **102**. The flag and pole

mounting assembly **804** for receiving the flagpole **110** is positioned near one sidewall **106**. The sidewall **106** contains a stake pocket **820**. The flag and pole mounting assembly **804** is coupled to the sidewall **106** as discussed in greater detail herein. Hence, the flagpole **110** is secured or attached to the truck **100** via the flag and pole mounting assembly **804**. While the truck **100** is shown as a preferred embodiment, in another embodiment a different type of motor vehicle (car, boat, etc.) or other mobile or stationary structure may accommodate the flag and pole mounting assembly **804** for attaching the flagpole **110** thereto. Furthermore, other objects may be mounted in place of or in addition to flagpoles (e.g., light vehicles, animals, fishing equipment). Additionally, a wind deflector **150** having a wedged shape couples to the flagpole **110** for directing or controlling a flow of air around the flagpole **110** to better increase stability when the truck **100** is in motion. The wind deflector **150** may be formed of various shapes or sizes or fasten to the flag and pole mounting assembly **804** instead of the flagpole **110** in alternative embodiments. In still another embodiment, the wind deflector **150** may not be included in order to reduce drag forces, depending on the angle of the flagpole **110**.

FIG. **9** shows a perspective view of a mounting assembly **804**. The mounting assembly **804** is preferably configured for attachment to a truck **100** at one stake pocket **820** (see FIG. **8**). A flagpole attachment member **230** is coupled to a shaft **904**. The shaft **904** is curved and operates to offset the connection location of the flagpole attachment member **230** from directly above the stake pocket **820** (see FIG. **8**). The flagpole attachment member **230** is similar to those embodiments discussed above and couples to the shaft **904** by similar methods. The flagpole attachment member **230** preferably contains a cavity for receiving a flagpole **110** and incorporates an endcap **308** and an endbolt **309** to secure the flagpole **110** within the cavity, as discussed in greater detail above. In addition, a light source **240** electrically connected with a solar panel **250** is preferably coupled to the flagpole attachment member **230** as discussed in greater detail above.

With reference to FIG. **8**, instead of extending across the bed of a truck, the mounting assembly **804** utilizes only one stake pocket **820** for securing the flagpole **110** to the vehicle **100**. A post **970**, coupled to the shaft **940**, is configured to be received by the stake pocket **820**. When the post **970** is positioned within the stake pocket **820**, the post **970** is configured to couple with the interior surface or component of the sidewall **106** via bolts or other fasteners **972** and **274** for increased stability. Other aspects, components or features of the mounting assembly **804** may be similar to the embodiments elsewhere described.

FIG. **10** shows a perspective view of a mounting assembly **1000**. The mounting assembly **1000** incorporates a flagpole attachment member **1030** that differs from those previously discussed since the flagpole attachment member **1030** is configured to mount directly to a post **1070** to be received within the stake pocket **820** of the sidewall **106** (see FIG. **8**). Other features or aspects of the flagpole attachment member **1030** may be similar to those discussed above. The flagpole attachment member **1030** preferably contains a cavity for receiving a flagpole **110**, as discussed in greater detail above. In addition, a light source **240** electrically connected with a solar panel **250** is preferably coupled to the flagpole attachment member **1030** as discussed in greater detail above. When the post **1070** is positioned within the stake pocket **820**, the post **1070** is configured to couple with the interior surface or component of the sidewall **106** via bolts or other fasteners as described above for increased stability. Other aspects, components or features of the mounting assembly **1000** may be similar to the embodiments elsewhere described.

FIG. **11** shows a perspective view of a mounting assembly **1100** that fastens to the back or sidewalls of a truck, but does not utilize stake pockets. Instead, the mounting assembly **1100** utilizes clamping arms **1170** for coupling the mounting assembly **1100** to the truck or other vehicle. Weights or contacting members **1174** coated with a gripping material (e.g., rubber) grip a portion of the body of the truck when screws or bolts **1172** are tightened to secure the clamping arms **1170** around a portion of the truck or vehicle. A flagpole attachment member **1130** couples to clamping arms **1170** by a shaft or other linking component **1104**. In an alternative embodiment, the clamping arms **1170** may be staggered along the length of the shaft **1104**. In still another embodiment, additional clamping arms **1170** may be positioned along the length of shaft **1104** to provide further contact points with the truck or vehicle to increase stability of the mounting assembly **1100**. Certain features or aspects of the flagpole attachment member **1130** may be similar to those discussed above. A light source **240** electrically connected with a solar panel **250** is preferably coupled with the flagpole attachment member **1130** as discussed in greater detail above.

The flagpole attachment member **1130** preferably contains a cavity for receiving a flagpole **1110**, as discussed in greater detail above. The flagpole **1110** extends through the flagpole attachment member **1130** and engages with a base **1108** positioned on the truck bed **1102**. The flagpole **1110** may be screwed or bolted to the base **1108** as shown, or alternatively may screw or otherwise engage with a portion of the base **1108**. The base **1108** may rest on the truck bed without any fastening elements or it may be secured by bolts, adhesives, etc. In an alternative embodiment, the base **1108** may not be needed and an endcap of the flagpole attachment member **1130** may be used to stabilize the flagpole **1110** when it is positioned within the flagpole attachment member **1130**. Other aspects, components or features of the mounting assembly **1100** may be similar to the embodiments elsewhere described.

Although the above described embodiments showcase varying features, components or attachment mechanisms, it is to be understood that the same or similar features, components or attachment mechanisms present for one embodiment may be incorporated into the other described embodiments as desired. In addition, the mounting assemblies above described may be designed or configured for a variety of objects to be mounted or secured to a truck in place of or in addition to flag attachment, for example light vehicles (e.g. bicycles, motorcycles, ATVs, etc.), pets (e.g. dogs), or fishing rods or equipment.

Exemplary embodiments of the invention have been disclosed in an illustrative style. Accordingly, the terminology employed throughout should be read in a non-limiting manner. Although minor modifications to the teachings herein will occur to those well versed in the art, it shall be understood that what is intended to be circumscribed within the scope of the patent warranted hereon are all such embodiments that reasonably fall within the scope of the advancement to the art hereby contributed, and that that scope shall not be restricted, except in light of the appended claims and their equivalents.

What is claimed is:

1. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole;

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle;

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle;

wherein the connecting portion of the first endshaft is adjustably coupled to the first portion of the middle shaft for adjusting a distance between the first post and the second post;

wherein the connecting portion of the first endshaft slidably engages with the first portion of the middle shaft;

a slot disposed substantially along the first portion of the middle shaft; and

a fastening element coupled to the connecting portion of the first endshaft, the fastening element received by the slot.

2. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole;

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle;

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle;

wherein the connecting portion of the first endshaft is adjustably coupled to the first portion of the middle shaft for adjusting a distance between the first post and the second post;

wherein the connecting portion of the first endshaft slidably engages with the first portion of the middle shaft;

a plurality of holes disposed substantially along the first portion of the middle shaft; and

a fastening element coupled to the connecting portion of the first endshaft, the fastening element received by at least one of the plurality of holes.

3. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole;

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle;

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle; and

wherein the flagpole attachment member substantially surrounds a perimeter of the middle shaft and further comprising a fastening element that passes through the flagpole attachment member and an interior of the middle shaft for coupling the flagpole attachment member to the middle shaft.

4. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole;

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle;

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle; and

wherein the flagpole attachment member substantially surrounds a perimeter of the middle shaft and further comprising a fastening element that passes through the flagpole attachment member and does not pass through an interior of the middle shaft for coupling the flagpole attachment member to the middle shaft.

5. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole; and

wherein the flagpole attachment member is adjustably positioned along a length of the middle shaft between the first portion and the second portion of the middle shaft.

6. The mounting assembly of claim **5** further comprising:

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle; and

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle.

7. The mounting assembly of claim **6** further comprising:

a second flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the second flagpole attachment member defining an opening for receiving the flagpole;

a third flagpole attachment member coupled to the middle shaft between the first portion and the second portion the third flagpole attachment member defining an opening for receiving the flagpole; and

a light source adjustably coupled to any of the flagpole attachment member, the second flagpole attachment member or the third flagpole attachment member.

8. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall defining a first stake pocket and a second sidewall defining a second stake pocket, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole; and

wherein the flagpole attachment member is adjustably oriented around a perimeter of the middle shaft between the first portion and the second portion of the middle shaft.

9. The mounting assembly of claim **8** further comprising:

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a first post coupled to the end portion of the first endshaft, the first post configured to engage with the first stake pocket of the first sidewall of the vehicle; and

a second post coupled to the end portion of the second endshaft, the second post configured to engage with the second stake pocket of the second sidewall of the vehicle.

10. The mounting assembly of claim **9** further comprising:

a second flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the second flagpole attachment member defining an opening for receiving the flagpole;

a third flagpole attachment member coupled to the middle shaft between the first portion and the second portion the third flagpole attachment member defining an opening for receiving the flagpole; and

a light source adjustably coupled to any of the flagpole attachment member, the second flagpole attachment member or the third flagpole attachment member.

11. A flag and pole mounting assembly for attaching a flagpole to a vehicle, the vehicle having a first sidewall and a second sidewall, the mounting assembly comprising:

a middle shaft having a first portion and a second portion, the middle shaft configured to extend substantially between the first sidewall and the second sidewall of the vehicle;

a first endshaft having a connecting portion coupled to the first portion of the middle shaft and an end portion;

a first threaded component engaged with the end portion of the first endshaft;

a second endshaft having a connecting portion coupled to the second portion of the middle shaft and an end portion;

a second threaded component engaged with the end portion of the second endshaft;

a first bracket engaged with the first threaded component and configured to contact the first sidewall of the vehicle;

a second bracket engaged with the second threaded component and configured to contact the second sidewall of the vehicle; and

a flagpole attachment member coupled to the middle shaft between the first portion and the second portion, the flagpole attachment member defining an opening for receiving the flagpole.

12. The mounting assembly of claim **11** wherein the first threaded component is configured to rotate within the first bracket and within the end portion of the first endshaft for increasing or decreasing a distance between the end portion of the first endshaft and the first sidewall of the vehicle; and

wherein the second threaded component is configured to rotate within the second bracket and within the end portion of the second endshaft for increasing or decreasing a distance between the end portion of the second endshaft and the second sidewall of the vehicle.

13. The mounting assembly of claim **11** wherein the middle shaft is substantially cylindrical.

14. The mounting assembly of claim **11** wherein the flagpole attachment member defines a second opening and further comprising a light source for illuminating the flagpole, the light source having a protrusion adjustably received by the second opening of the flagpole attachment member.

15. The mounting assembly of claim **14** further comprising a solar panel electrically connected to the light source for powering the light source.

16. The mounting assembly of claim **14** wherein the light source is configured to be powered by an existing electrical system of the vehicle.

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